

2002 Recycled Water Task Force

Overview and Progress

Public Workshop
February 26, 2002
San Francisco

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Today's presentation

- Task Force History
- Task Force Objective
- Task Force Workgroups
- Status of Work
- Inputs and questions

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- ***Water Recycling***

The process of treating wastewater to produce "recycled water" for beneficial uses, its transportation to the place of use and its actual use.

"Recycled water" however, is defined in the California Water Code to mean "water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur."

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History

- Assemblywoman Jackie Goldberg introduced AB 331 on Feb 16, 2001
- Passed on Sept 13, 2001
- Approved by Governor Davis on October 7, 2001
- Task Force formed by DWR during February and March 2002
- First meeting was held on April 3, 2002
- Report to legislature by July 1, 2003

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The Task Force is a cooperative effort of the California Department of Water Resources, the State Water Resources Control Board, and the Department of Health Services

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Objectives

The Goal of the Task Force is to answer the question: how can the safe use of recycled water be increased?

- ☐ State or local rules, regulations, ordinances, and permits need adjustments appropriate to increase the safe use of recycled water.
- ☐ Impediments or constraints to increasing the safe use of recycled water, other than water rights, need to be identified.

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Task Force Workgroups

- Science and health / Indirect Potable Reuse
- Public Information, Education and Outreach
- Regulations and Permitting
- Funding / CALFED Coordination
- Plumbing Code/Cross Connection Control
- Economics

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Task Force Workgroups

- ❖ Public Information, Education & Outreach (met 4 times)
- ❖ Regulations & Permitting (met 5 times)
- ❖ Funding / CALFED Coordination (met 4 times)
- ❖ Science & Health / Indirect Potable Reuse (met 2 times)
- ❖ Plumbing Code / Cross Connection Control (met 4 times)
- ❖ Economics (met 3 times)

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Science & health / Indirect Potable Reuse Workgroup

- **Charge:**
Examine the scientific basis for current reuse standards, address the importance of emerging issues of scientific and public health concern, identify any areas of research needs, and substantiate the need to reconvene the California Indirect Reuse Committee
- **Progress:**
 - No need to reconvene the California Indirect Reuse Committee
 - A need for long-term sustained state funding for research
 - Issue papers in progress: ...

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Public Information, Education and Outreach Workgroup

- **Charge:**
Address issues related to public perception and acceptance, public education programs, and social equity in the distribution of recycled water
- **Progress:**
- **Identifying ways to:**
 - Incorporate the opposition into the decision making process
 - Learn what the public/dec. mkr. issues are
 - Communicate effectively
 - Listen effectively
 - Involve public early
 - Incorporate public issues within the planning processes
 - Champion use of recycled water

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Economics Workgroup

- **Charge:**
Identify economic impediments to enhancing water recycling statewide and make recommendations for mitigating such economic impediments.
- **Progress:**
 - Background on economics of water recycling-cost/benefit analysis
 - Previous work
 - Case studies and existing funding strategies
 - Equity of funding / sharing of benefits and costs

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Regulations and Permitting Workgroup

- **Charge:**
Review the laws, regulations, and regulatory agency practice pertaining to recycled water, suggest amendments to remove the impediments to the safe use of recycled water, and propose uniform regulatory application of standards throughout the state
- **Progress:**
 - Incidental Runoff
 - Lack of Uniform Interpretation of State Standards
 - Permitting Procedures
 - Water Softeners and Source Protection
 - Jurisdictional Conflicts

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Funding/CALFED Coordination Workgroup

- **Charge:**
Identify opportunities for financing recycled water projects and propose means to coordinate the efforts of various state and federal agencies in terms of financing these projects
- **Progress:**
 - Get a better handle on local share of funding
 - Coordinate local/State/Federal sources of funding
 - Assess recycling costs and benefits
 - Regional planning approach to water recycling

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Plumbing Code / Cross Connection Control Workgroup

- **Charge:**
Examine Appendix J of the Plumbing Code, and related regulations, as it pertains to recycled water and recommend amendments in order to advance the safe delivery and use of recycled water
- **Progress:**
 - Recommend a California Appendix J
 - Recommend amendments to Titles 17 and 22

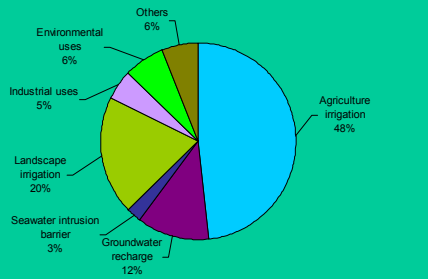
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Water recycling projects can be complex and involve a number of issues not encountered in the delivery of potable water. Careful planning must incorporate:

- ✓ User acceptance and commitment
- ✓ Public support and acceptance
- ✓ Addressing institutional constraints
- ✓ Inclusion in local and regional water plans
- ✓ Environmental analysis
- ✓ Economic and financial feasibility
- ✓ Thorough engineering analysis
- ✓ Public funds through low interest loans and grants

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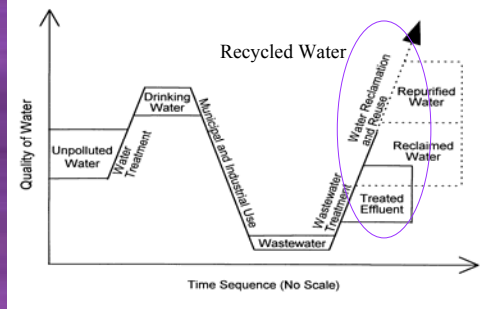
Municipal recycled water use in California in 2000 accounted for 401 thousands acre-feet.



(Source of data: 2001 SWRC)

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II. Spectrum of reclaimed water quality



Water quality changes during municipal uses of water in a time sequence and the concept of water recycling (Asano, T., *Water Science & Technology*, Vol. 45, No. 8, p. 29, 2001.)

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Health risk assessment for recycled water use

Despite a long history of water reuse in California, the question of safety of recycled water use is still difficult to define and delineation of acceptable health risks has been hotly debated.

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Health risk assessment for recycled water use

Four water quality factors are of particular concern:

- (1) microbiological quality,
- (2) total mineral content (e.g., total dissolved solids),
- (3) presence of toxicant of the heavy metal type, and
- (4) the concentration of stable organic substances.

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Task Force 13 top recommendations (Continued)

- Increase State funding for reuse/recycling beyond Proposition 50 and other current sources.
- Expand funding sources to include sustainable State funding for research.
- Adopt less burdensome regulatory mechanisms affecting incidental runoff of recycled water from irrigation impoundments.
- Engage the public in an active dialogue using a value-based decision-making model in planning water recycling projects.
- Establish "Top Down" support for water recycling to include convening a statewide panel to address issues related to indirect potable reuse.

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Task Force 13 top recommendations (Continued)

- Create uniform interpretation of state standards in state and county regulatory programs
- Adopt a California version of Appendix J of the California Plumbing Code in order to avoid the inconsistencies between the IAPMO version and other California regulations affecting indoor use of recycled water.
- Propose legislation to increase local flexibility to regulate water softeners (legislation is pending).
- Convene a statewide panel to recommend changes to public schools and higher education curriculum.

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Task Force 13 top recommendations (Continued)

- Improve DHS guidance to achieve more consistent interpretation of state standards.
- Encourage an integrated academic program on one or more campuses for water reuse research and education, which is expected to generate well-educated practitioners on water recycling production, quality, and use.
- Develop a uniform method for analyzing projects and a consistent economic feasibility framework across funding agencies.
- Adopt a State-sponsored media campaign to increase public awareness and knowledge of recycled water.

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Task Force Additional important recommendations (Continued)

- Recommend not reconvening the statewide science-based panel to address indirect potable reuse. However, it is recommended to convene a new statewide panel to address issues related to indirect potable reuse (Recommendation 5).
- Encourage local agencies to perform economic analyses (quantifying total benefits and costs) of water recycling projects in addition to financial analyses; and include such analyses as two of the funding criteria in state and federal funding programs.

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Task Force Additional important recommendations (Continued)

- Develop a revised funding procedure to provide local agencies with assistance in potential State and federal funding opportunities.
- Established a Water Recycling Funding Coordination Committee to coordinate applicant's funding needs with the appropriate funding agencies.
- Present information on funding availability through workshops, conferences and on the Internet.
- Expand funding sources to include sustainable State funding for DWR's technical assistance and research.

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Task Force Additional important recommendations (Continued)

- Provide funding agencies with the resources to perform comprehensive analysis of past recycling performance (costs and benefits) and projection of future performance.
- Conduct various measures to improve the administration and compliance with local and state permits, including providing DHS guidance, dissemination of information by ACWA and CASA, and concurrent development of basin plans and permits by SWRCB and RWQCBs.
- Maintain strong source control programs and increase public awareness of their importance in reducing pollution and ensuring a safe recycled water supply.

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Task Force Additional important recommendations (Continued)

- DHS to prepare guidance on Cross-Connection Control to clarify the intent and applicability of Title 22, Article 5 and the requirement for testing in Title 22, Section 60316(a) and to amend Title 22, Article 5 to incorporate inspection and testing requirements consistent with those proposed in the recommended California Appendix J.
- Housing and Community Development Department should submit a code change to remove the requirement for the skull and crossbones symbol in Sections 601.2.2 and 601.2.3 of the California Plumbing Code.

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Task Force Additional important recommendations (Continued)

- Support a thorough assessment of the risk associated with cross-connections between disinfected tertiary recycled water and potable water. The risk assessment would provide a scientific basis for regulations controlling potential cross-connections.
- Encourage stakeholders to review the DHS draft changes of the Title 17 Cross-connection Control requirements and comment as appropriate.

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